

CLAIM AMENDMENTS

1. (currently amended) A method of manufacturing an on-chip transformer balun, the method comprises:

creating, on a semiconductor substrate, a primary winding having at least one primary turn on a first dielectric layer and at least one metal bridge on a second dielectric layer, wherein the at least one primary turn is substantially symmetrical, ~~and wherein the primary winding is on at least one dielectric layer;~~ and

creating, on the semiconductor substrate, a secondary winding having at least one secondary turn on a third dielectric layer and at least one metal bridge on a fourth dielectric layer, wherein the at least one secondary turn is substantially symmetrical, ~~and wherein the secondary winding is on at least one other dielectric layer and wherein the secondary winding~~ is magnetically coupled to the primary winding.

2. (currently amended) The method of claim 1, wherein the creating of the primary winding further comprises:

creating a plurality of turns on a the ~~first one of the at least one dielectric layer;~~

creating a plurality of metal bridges on a ~~second one of the at least one~~ the second dielectric layer; and

operably connecting the plurality of metal bridges to the plurality of turns to provide the primary winding.

3. (currently amended) The method of claim 1, wherein the creating of the secondary winding further comprises:

creating a plurality of turns on ~~a first one of the at least one other~~ the third dielectric layer;

creating a plurality of metal bridges on ~~a second one of the at least one other~~ the fourth dielectric layer; and

operably connecting the plurality of metal bridges to the plurality of turns to provide the secondary winding.

4. (original) The method of claim 1 further comprises:

creating the primary winding to include an interwoven spiral-type primary inductor; and

creating the secondary winding to include an interwoven spiral-type secondary inductor that is substantially symmetrical to the primary winding.

5. (original) The method of claim 1 ~~further comprises~~ wherein the primary winding includes ÷

~~creating the an~~ interwoven spiral-type primary inductor ~~to include~~ including a first number of multiple turns; and

~~creating the~~ wherein the secondary winding includes an interwoven spiral-type secondary inductor ~~to include~~ including a second number of multiple turns.

6. (original) The method of claim 1, wherein the creating of the secondary winding further comprises:

connecting a center tap of the secondary winding to ground to provide a differential signal at end ports of the secondary winding.

7. (cancelled)

8. (cancelled)

9. (new) A method of manufacturing an on-chip transformer balun, the method comprises:

creating, on a semiconductor substrate, a primary winding having at least one first primary turn on a first dielectric layer and at least one second primary turn on a second dielectric layer and at least one via that operably connects the first primary turn to the second primary turn, wherein the at least one primary turn is substantially symmetrical; and

creating, on the semiconductor substrate, a secondary winding having at least one first secondary turn on a third dielectric layer and at least one second secondary turn on a fourth dielectric layer, wherein the at least one secondary turn is substantially symmetrical, and wherein the secondary winding is magnetically coupled to the primary winding.